

## LISTING OF CLAIMS

1(CURRENTLY AMENDED). An ~~optical disc~~ A player for playing an optical disc with a first side and a second side, wherein data is arranged on the data layer of said first side along a first spiral oriented in a first direction when viewed on said first side, and data is arranged on the data layer of said second side along a second spiral oriented in a direction opposite that of said first spiral when viewed on said second side; said player comprising:

a controller determining a direction of rotation for the disc that allows data to be read from either side of the disc, said controller generating corresponding controller commands, by analyzing the waveshape of the signals on the disc;

a motor responsive to said controller commands to rotate the disc in said direction of rotation; and

a read head disposed adjacent to said first side for reading data.

2(CANCELLED). The player of claim 1 further comprising a sensor monitoring the direction in which data is recorded on the disc, said sensor generating sensor signals used by said controller to generate said controller commands.

3(CANCELLED). The player of claim 1 wherein the disc includes a special portion in a predetermined location that is used to store data indicative of the characteristics of the disc, and wherein in response to the initial presence of

the disc in the player, said controller sends a read command to said read head to read data from the special annular portion.

4(ORIGINAL). The player of claim 1 wherein said disc includes a main portion with program data arranged along said first spiral to allow data to be read from said main portion when said disc is rotated in said direction of rotation, and a special portion with disc characteristic data arranged to be read when the disc is rotated in an opposite direction, and wherein said controller sends a read command to said read head to read data in said special portion.

5(ORIGINAL). The player of claim 4 wherein said controller generates said read command only when no data is detected in the main portion.

6(ORIGINAL). The player of claim 1 further comprising a display showing information about the operation of the player and/or disc characteristics.

7(CURRENTLY AMENDED). ~~The player of claim 1 further comprising~~ A player for playing an optical disc with a first side and a second side, wherein data is arranged on the data layer of said first side along a first spiral oriented in a first direction when viewed on said first side, and data is arranged on the data layer of said second side along a second spiral oriented in a direction opposite that of said first spiral when viewed on said second side; said player comprising:

a controller determining a direction of rotation for the disc that  
allows data to be read from either side of the disc, said controller generating  
corresponding messages to a user indicating whether the disc is rotated in the  
proper direction and controller commands responsive to user actions;

a motor responsive to said controller commands to rotate the disc  
in said direction of rotation;

a read head disposed adjacent to said first side for reading data,  
and

a manual switch operable by a user in response to said messages  
for controlling the direction in which said motor rotates the disc, said controller  
being coupled to said switch to generate said controller commands.

8(ORIGINAL). The player of claim 1 further comprising a yoke that selectively switches said read head between said sides.

9(ORIGINAL). The player of claim 1 comprising a first and a second read head, each read head being positioned on a respective side of the disc.

10- 15 (CANCELLED).

16(ORIGINAL). A player for reading an optical DVD disc having first and second sides comprising:

a controller generating controller commands;

a motor responsive to the controller commands; and  
two read heads reading data from respective sides of the disc;  
wherein said controller causes said motor to rotate said disc in one  
direction to read data on said first side and to rotate said disc in the opposite  
direction to read data on the second side.

17(ORIGINAL). The player of claim 16 further comprising a user-operated member having a first and a second position and wherein said controller is coupled to said user-operated member to determine the direction of rotation of the disc.

18(ORIGINAL). The player of claim 16 further comprising a sensor adapted to detect the direction in which data is arranged on one of said sides, said sensor generating a signal to said controller.

19(CURRENTLY AMENDED). An optical disc player for reading a disc having first and second sides, each side carrying data arranged to be read only when the disc is rotating in a first direction and has a first orientation or the disc is rotating in a second direction and has a second orientation, the player comprising:

a controller that issues controller commands;  
at least a first read head to read data from said first side of the disc;  
a me;

a motor rotating said disc in a specified direction; and  
a display responsive to controller commands to display a message  
requesting that the disc be reversed;  
wherein said controller generates said controller commands if ~~no~~  
~~data is read from the disc if said first head cannot read any data from said disc.~~

20(CURRENTLY AMENDED). A method of operating an optical disc player comprising:

inserting an optical disc into the disc player, said disc having at least one side with a data layer with data-;  
rotating the disc in a predetermined direction;  
determining if the data is readable; and  
reversing the rotation of the disc if the data is not readable.

21(CANCELLED).

22(ORIGINAL). The method of claim 20 wherein said data layer includes program data and a special portion with disc characteristic data, wherein said step of determining includes attempting to read said special portion.

23(ORIGINAL). The method of claim 22 wherein said program data and said disc characteristic data are arranged on said data layer so that they can be read when the disc is rotated in an appropriate direction.

24(ORIGINAL). The method of claim 22 wherein said program data is arranged so that it can be read only when the disc is rotated in a first direction and said disc characteristic data is arranged so that it can be read only when the disc is rotated in a second direction opposite to said first direction.

25(ORIGINAL). The method of claim 20 wherein said data layer includes a first portion having first data arranged for reading when the disc is rotated in a first direction and a second portion with second data arranged for reading when the disc is rotated in a second direction opposite said first direction, and wherein first an attempt is made to read said first data, and if this first data cannot be read, then the rotation is reversed and an attempt is made to read said second data.

26(ORIGINAL). The method of claim 20 wherein said data layer includes said special data that is readable when the disc is rotated either in a first or a second direction, said data being indicative of the proper direction rotation required for data on the disc to be read, wherein said step of determining includes reading said special data.

27(CURRENTLY AMENDED). A method of operating a disc player to play a disc having a first and a second side, each said side having data arranged along a respective first and second spiral, said spirals being mirror

images of each other when viewed from the respective sides, so that the disc can be read when it is rotated in a first direction and has a first orientation, or when it is rotated in a second direction and has a second orientation, comprising:

inserting the disc into the player;

determining the orientation of the disc; and

rotating the disc in the direction required to play ~~both sides~~ one of said sides of the disc based on the orientation of the disc.

28 (CANCELLED)

29(CURRENTLY AMENDED). The method of claim 28 27 wherein the step of determining includes rotating the disc in a predetermined direction and attempting to read data from said first side.

30(ORIGINAL). The method of claim 29 further comprising reversing said rotation if data is not read from said first side.

31(ORIGINAL). The method of claim 27 wherein said disc has a special section on the first side, and wherein said step of detecting includes detecting said special section.

32(ORIGINAL). The method of claim 27 wherein said disc has on said first side a first special section with data oriented along said first spiral and a

second special section with data oriented along a third spiral oriented in a direction opposite that of said first spiral, and wherein said step of detecting includes rotating the disc for reading the data on the first special section, attempting to read the data on the first special section, and if no data is found on the first special section, reversing the rotation of the disc and attempting to read the data on the second special section.

33(ORIGINAL). The method of claim 27 wherein said disc includes a special section on one side with data indicative of the required direction of the rotation for the disc for data to be read from either side, said data being readable independently of the direction of rotation of the disc and wherein said step of detecting the first side includes reading the data on said special section.

34-35 (CANCELLED)

36 (NEW). A method of operating a disc player to play a disc having a first and a second side, each said side having data arranged along a respective first and second spiral, said spirals being mirror images of each other when viewed from the respective sides, so that the disc can be read when it is rotated in a first direction and has a first orientation, or when it is rotated in a second direction and has a second orientation, said data being represented by analog signals on said disc, comprising:

inserting the disc into the player;

determining the orientation of the disc by analyzing the characteristics of said analog signal ; and

rotating the disc in the direction required to play one of said sides of the disc based on the orientation of the disc.

37 (NEW). A player for playing dual sided optical DVD discs, including a standard optical DVD disc having data arranged in a spiral arranged in the same direction and a special optical DVD disc having data arranged in spirals oriented in opposite directions on the sides, comprising:

    a motor receiving and playing one of said DVD discs;

    a first and a second head arranged to read data on the two opposite sides of said one of said DVD discs;

    a detector arranged to detect data on said DVD discs to determine whether the direction of rotation of the disc for one of said first and second heads to read the data; and

    a controller receiving an input from said detector and generating commands to said motor, wherein said first and second heads read data from the sides of said one of said DVD discs while said motor is rotating in the appropriate direction for the respective side.

38 (NEW). The player of claim 37 wherein said motor rotates in a first direction to read the sides of said special optical DVD discs and wherein said motor rotates in said first direction for one side of said standard discs and in the

other direction for the other side of said standard discs.